

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A membrane for biological applications, comprising an elastic material and at least one passage which extends through the elastic material, one of the at least one passage having an oval cross-section, wherein when said passage having the oval cross-section is expanded, which occurs when a cannula is inserted in the passage, said elastic material elastically presses against said cannula and surrounds the cannula in a seal, wherein the membrane can be compressed perpendicularly relative to the passage by way of at least one compressible space, said space formed by an elastic, porous but non-permeable material.
2. (Canceled)
3. (Currently Amended) The membrane as set forth in claim [[2]] 1, wherein the at least one hollow space is next to the passage.
4. (Currently Amended) The membrane as set forth in claim 3, wherein the at least one hollow compressible space extends through the elastic material next to the passage.
5. (Currently Amended) The membrane as set forth in claim [[2]] 1, wherein a number of hollow compressible spaces are formed in the elastic material of the membrane and are generally axially symmetrical with respect to an axis of symmetry which extends in a cross-sectional plane of the passage.
6. (Currently Amended) The membrane as set forth in claim 5, wherein the hollow compressible spaces are not rotationally symmetrical with respect to a longitudinal axis of the membrane which is generally perpendicular to said cross-sectional plane of the passage.
7. (Canceled)

8. (Currently Amended) A membrane for biological applications, comprising at least one passage which extends through an elastic material of said membrane, wherein when said passage is expanded, which occurs when a cannula is inserted into the passage, said material elastically presses against said cannula and surrounds the cannula in a seal, wherein the passage exhibits a cross-sectional area comprising a long main axis and a short main axis generally perpendicular to said long main axis, said long main axis and short main axis having a length greater than zero;

wherein a number of compressible spaces formed by an elastic, porous but non-permeable material are generally adjacent to the passage and are generally axially symmetrical with respect to an axis of symmetry which extends in a cross-sectional plane of the passage; and
wherein the compressible spaces are generally axially symmetrical on both sides of the long main axis.

9. (Canceled)

10. (Previously Presented) The membrane as set forth in claim 8, wherein the oval shaped cross-section area exhibits a circumference with a constant curvature.

11. (Canceled)

12. (Currently Amended) The membrane-cannula combination as set forth in claim [[11]] 17, wherein the at least one number of elastic, porous but non-permeable hollow space is spaces are next to the passage.

13. (Currently Amended) The membrane-cannula combination as set forth in claim 12, wherein the at least one hollow elastic, porous but non-permeable space extends through the elastic material next to the passage.

14. (Canceled)

15. (Currently Amended) The membrane-cannula combination as set forth in claim [[14]] 17, wherein the hollow elastic, porous but non-permeable spaces are not rotationally symmetrical

with respect to a longitudinal axis of the membrane, perpendicular to said cross-sectional plane of the passage.

16. (Cancelled)

17. (Currently Amended) A membrane-cannula combination for biological applications, said combination comprising:

- a) a cannula for conveying a fluid;
- b) a casing;
- c) and a membrane accommodated by said casing and comprising an elastic membrane material through which a passage having an oval shaped cross-section is formed, into which said cannula can be inserted, and a number of elastic, porous but non-permeable spaces are formed in the membrane that are generally axially symmetrical with respect to an axis of symmetry which extends in a cross-sectional plane of the passage;
- d) wherein said passage is expanded by inserting the cannula and said membrane material presses against the elastic, porous but non-permeable spaces and said casing, generally perpendicularly relative to the passage, and elastically presses against the inserted cannula such that the membrane material surrounds the cannula in a seal; wherein
- e) the passage and the cannula exhibit different cross-sectional shapes relative to each other before the cannula is inserted.

18. (Currently Amended) A connecting device for connecting a fluid guiding means for a biological or biologically active fluid to a catheter, said connecting device comprising:

- a) a casing comprising an inlet for said catheter;
- b) a cannula which forms a front end of said fluid guiding means;
- c) and an elastic membrane comprising a passage having an oval cross-section into which said cannula can be inserted to establish the connection, and a number of elastic, porous but non-permeable spaces are formed in the membrane that are generally axially symmetrical with respect to an axis of symmetry which extends in a cross-sectional plane of the passage;

- d) wherein said membrane is accommodated by said casing in such a way that a sealed connection is established between the catheter and the cannula by the membrane; wherein
 - e) when the cannula is inserted in the passage, the passage is expanded, and said elastic membrane elastically presses against the elastic, porous but non-permeable spaces and said cannula and surrounds the cannula in a seal, wherein the membrane can be compressed perpendicularly relative to the passage.
19. (Original) The connecting device as set forth in claim 18, wherein said connecting device forms a body access device, the catheter can be implanted, and the casing is a port body which can be percutaneously or subcutaneously implanted.
20. (Original) The connecting device as set forth in claim 18, wherein a casing inlet for the catheter is formed in a recess of a casing surface and said recess exhibits a sufficient size to accommodate a curved section of the catheter.
21. (Original) The connecting device as set forth in claim 20, wherein the recess gradually tapers towards the inlet.
22. (Currently Amended) A connecting device for connecting a fluid guiding means for a biological or biologically active fluid to a catheter, said connecting device comprising:
- a) a casing comprising an inlet for said catheter;
 - b) a cannula which forms a front end of said fluid guiding means; an
 - c) an elastic membrane comprising a passage having an oval cross-section into which said cannula can be inserted, to establish the connection; wherein
 - d) said membrane is accommodated by said casing in such a way that a sealed connection is established between the catheter and the cannula by the membrane, and wherein the cross-sectional area of the passage comprises a long main axis and a short main axis generally perpendicular to said long main axis;
 - e) wherein a number of compressible spaces not penetrable by the cannula are formed from porous but non-permeable spaces in the elastic material of the membrane and are

generally axially symmetrical with respect to an axis of symmetry which extends in a cross-sectional plane of the passage; and

f) wherein the porous but non-permeable spaces are generally axially symmetrical on both sides of the long main axis.

23. (Original) The connecting device as set forth in claim 22, wherein said connecting device forms a body access device, the catheter can be implanted, and the casing is a port body which can be percutaneously or subcutaneously implanted.

24. (Original) The connecting device as set forth in claim 22, wherein the casing inlet for the catheter is formed in a recess of a casing surface and said recess exhibits a sufficient size to accommodate a curved section of the catheter.

25. (Original) The connecting device as set forth in claim 24, wherein the recess gradually tapers towards the inlet.

26. (Currently Amended) A membrane having at least a portion that is elastic, a passage having an oval cross-section associated with the elastic portion, wherein when a cannula is inserted in the passage, the passage is expanded and the portion sealingly presses against the cannula, wherein a plurality of spaces that are elastic, porous but not penetrable by the cannula are formed in the elastic portion and are arranged at least on one side of the passage and on an opposite side of the passage.

27. (Original) The membrane according to claim 26, wherein the portion can be compressed at an angle relative to the passage.

28. (Previously Presented) The membrane according to claim 27, wherein the passage having the oval cross-section exhibits a cross-sectional area having a long main axis and a short main axis perpendicular to the long main axis.

29. (Original) The membrane according to claim 27, further comprising a cannula for biological and medical uses.

30 (Original) The membrane according to claim 27, further comprising a connecting device for connecting a fluid guide and a catheter.

31. (Original) The membrane according to claim 28, further comprising a cannula for biological and medical uses.

32. (Original) The membrane according to claim 28, further comprising a connecting device for connecting a fluid guide and a catheter.

33. (Currently Amended) A membrane for biological applications, comprising an elastic material having a first passage which extends through a substantially central portion of the elastic material, the first passage having a cross-sectional area, and at least one other passage which extends through the elastic material, the at least one other passage having a cross-sectional area that is different from the cross-sectional area of the first passage, wherein when said first passage is expanded, which occurs when a cannula is inserted in the passage, said elastic material elastically presses against said cannula and surrounds the cannula in a seal, wherein the membrane can be compressed perpendicularly relative to the first passage, and wherein the at least one other passage is not penetrable by the cannula.

34. (Currently Amended) The membrane according to claim 33, wherein the at least one other passage comprises a hollow porous but non-permeable space having a cylindrical cross-section.

35. (Canceled)

36. (Currently Amended) A connecting device for connecting a fluid guiding means for a biological or biologically active fluid to a catheter, said connecting device comprising:

- a) a casing comprising an inlet for said catheter;

- b) a cannula which forms a front end of said fluid guiding means; and
- c) an elastic membrane comprising a passage having an oval cross-section into which said cannula can be inserted to establish the connection;
- d) said elastic membrane further comprising a plurality of hollow elastic, porous but non-permeable spaces adjacent to the passage, the hollow elastic, porous but non-permeable spaces not permeable penetrable by the cannula;
- e) wherein said membrane is accommodated by said casing in such a way that a sealed connection is established between the catheter and the cannula by the membrane; wherein
- f) when the cannula is inserted in the passage, the passage is expanded, and said elastic membrane elastically presses against said cannula and surrounds the cannula in a seal, wherein the plurality of hollow elastic, porous but non-permeable spaces of the membrane can be compressed perpendicularly relative to the passage.